

Revolutionary Auto Seen By Charpie Before Senate

A revolutionary, new type of non-polluting, noiseless automobile of the future that would be powered by a combination of a fuel cell and a rechargeable battery was proposed recently at the Senate Commerce Committee hearing on the electric car.

The recommendation was made in a statement by Dr. Robert A. Charpie, president of the Electronics Division of Union Carbide Corporation.

The "hybrid" power system would, Dr. Charpie said, bring together the best operating characteristics of the fuel cell and the rechargeable battery. Earlier Dr. Charpie had demonstrated a fuel cell - powered motorbike which is a prototype hybrid vehicle. In this machine a fuel cell is mated to a nickel-cadmium battery pack which provides power for peak demands such as going up a steep hill.

With the system, the fuel cells, during normal operation, provide both the motive power and the electrical energy to maintain the batteries in a fully charged condition.

He explained that in this system the power plant, weight, volume and costs are minimized. **What Fuel To Use?**

Dr. Charpie remarked that the question of fuel is a serious problem. Gasoline would be the most convenient fuel because of the existing distribution system of supplying automobiles. But this is not practicable at present and what the ultimate fuel will be is not known, he said.

"However, it is a matter of record that hydrogen fuel cells are the best developed systems available today," he reported. "A system based on hydrogen and oxygen has the highest theoretical energy density of any known fuel combination. Cost considerations force us in the direction of using air instead of oxygen. However, hydrogen remains the preferred fuel from the standpoint of efficiency and economy. To insure a growing fuel cell economy based on hydrogen-fueled vehicles, it will be necessary to establish consumer acceptance of this

Continued on Page 4

'Atoms In The Marketplace' Filmed For AEC, Uses Y-12 Labs For Locale

Some Y-12 Plant personnel and facilities will be seen in a motion picture scheduled to be released later this year by the U.S. Atomic Energy Commission.

The movie, entitled "Atoms in the Marketplace," is to be used as an educational tool to acquaint private industry with the strict accounting and control procedures used in the management of nuclear materials.

Most of the scenes for the movie were made in the Oak Ridge area because facilities for uranium enrichment, conversion, fabrication, analysis and use are available here.

In addition to Y-12, scenes were made at the Oak Ridge National Laboratory, Oak Ridge Gaseous Diffusion Plant, Oak Ridge Associated Universities, and private industrial firms.

The filming was performed by Calvin Productions, Kansas City, Missouri. The Y-12 Classification and Information Division helped coordinate filming arrangements within Y-12.

Major uses for high-density polyethylene are bottles for household chemicals such as bleach and detergents, milk bottles, housewares, toys, military applications, and automotive applications.



S. G. GREENE, Y-12's PRODUCTION ASSAY, prepares to act in a brief sequence for a motion picture being made by Calvin Productions for the U. S. Atomic Energy Commission. Director Don Hoffman, far right, studies the set while Rob Wilcox and Wayne Sharp, peering through the camera, get set for action.



ALAN ATKINS AND HIS ORCHESTRA tune up for Y-12's big Spring Dance, set this Friday, April 7. The fun gets underway at 9 p.m. at the Oak Terrace Ballroom. An all-division committee has been pushing the dance in the plant for some time. See you there.

Seadrift Expansion Set By Carbide

A major expansion of high-density polyethylene facilities is underway at Union Carbide Corporation's Seadrift, Texas plant, according to an announcement from Birny Mason Jr., chairman of the board. When completed, Union Carbide will have a high-density polyethylene capacity of more than 250 million pounds per year.

The first part of the expansion will be completed and in operation late in 1967. The balance, including a new unit, is scheduled for completion in the fourth quarter of 1968.

Currently, Union Carbide's high-density polyethylene facilities, which are located at Seadrift, have a combined capacity of 125 million pounds per year.

Industry's high-density polyethylene sales of 900 million pounds in 1966 were 20 per cent higher than those of 1965, and are expected to exceed the billion pound level this year.

Major uses for high-density polyethylene are bottles for household chemicals such as bleach and detergents, milk bottles, housewares, toys, military applications, and automotive applications.

Australia's Robson Is Guest Seminar Speaker

B. A. Robson, Australian National University, Canberra, Australia, will conduct this week's Physics Division Seminar. His topic will be "Scattering and Polarization of Deutrons by Complex Nuclei."

The seminar is slated for Friday, April 7, at 3:15 p.m. in the East Auditorium of ORNL's 4500 building.

Carbide Gains 15,000 Stockholders In 1966!

During 1966 Union Carbide Corporation gained 15,000 new stockholders, for its greatest one-year increase in history. Stockholders' equity last year rose from \$1,357,257,000 to \$1,476,145,000 . . . a gain of \$118,888,000.

Scene Is All Set For Friday's Dance!

The scene is all set now . . . all you have to do is come on out. The big Spring Dance, set for Friday, April 7, at 9 p.m. will be staged at the Oak Terrace Ballroom, Oak Ridge.

The decorating committee has now done its noble service, the publicity committee has worked the plant over, and the entertainment committee promises something special during intermission.

Alan Atkins and his orchestra will be on hand promptly at nine to begin the festivities.

This Dance promises to be something extra, thanks to the enthusiasm of the all-divisions' representatives promoting the party.

From Materials and Services: Bobbie Hill, with ticket-sellers Margaret Dameron and Shirley Humphrey. Bill Fleischman, Engineering, has enlisted Joyce Williamson as a ticket-spotter. Dick Spurling is handling the Assembly end of the business.

Daisy Ward is pushing tickets in Technical. Nelson Bethea is accounting for the drive in Accounting and Budgets. In Metal Fabrication Jo Ann Isham has enlisted the help of: Thelma Bradshaw, Corine McDaniell, Dennis Roberts, Wilma Trebilcock, Bobbie Watkins, Herman Butler, R. Butler, Barbara Bowers, Carolyn Millsaps, Beverly Grubb, Fay Duncan, Jim Thompson and Lizz Harris.

In Fabrication Frank Broome boasts a fine committee in Joe

Ryan, Bob Bohanan, Bruce Dyer, Spence Ferguson and Charlie Kuykendahl.

In Maintenance Mary Wayne White has enlisted the aid of Frances Donahue, Jo Bratton, Madge Keck and Naomi Hart.

Jeanne Mitchell is doing Development; Mildred Scott is handling Utilities and Shift Superintendents.

Tickets are only \$1.50 per person for the big dance. Do you have yours yet? The above folks will only have them for the next day or so . . . then the tally will start.

Door-prizes for Friday's dance include an electric can opener, a Skotch cooler, a steam iron, an attache case, an outside wall thermometer, a man's shaving kit, an umbrella, an electric heat massager, and a Coleman picnic jug.

"Swing Into Spring" is the theme of Friday's big dance. Are you hep to the balmy weather yet? Then come on out and help Y-12ers celebrate the "Sacre du Printemps" whatever that means.

New Badge Pick-Ups Urged For Quarter

New badges for the new quarter are now available in the self-service racks at all portals. The Security Department has asked that you insert your old badge back in the same slot you got your new yellow-bordered one from.

The badges will remain up through 11 p.m. next Wednesday, April 12. After that, you will have to report to Badge and Pass to pick up your new means of identification. If you transferred portals during the past winter and did not fill out a change-card, your badge will be at your old portal-of-entry.

A TIME OF LIFE

Middle age is that time of life when your memory is shorter, your experience longer, your stamina lower, your forehead higher.

SAFETY SCOREBOARD

The Y-12 Plant Has
Operated
21 Days Or
581,000 Man-Hours
(Unofficial Estimate)
Through April 2
Without A Disabling
Injury
Working Safely Is
Very Smart Business

The Bulletin

Published Weekly For The
Y-12 Employees Of
UNION CARBIDE
CORPORATION



NUCLEAR DIVISION

JAMES A. YOUNG Editor

Member



Appalachian
Industrial
Editors'
Association

American Association Industrial Editors

OFFICE

Post Office Box Y
Oak Ridge, Tenn. 37830
Bldg. 9704-2 Room 137
Telephone 3-7100

Shifters' Big Crappie Fair A Success

Perhaps it was the fact that it was the first fishing outing of the year . . . but more than likely it was the perfect weather over the Easter weekend. The crowds did turn up for E, F, G, H and J's big crappie carnival Saturday, March 25, at Blue Springs.

This was one of the biggest crowds the shifters have had for a rodeo in some time . . . some 98 employees, with an added force of families, bringing the grand total to 127 people.

"Tons" of crappie were brought in, too. Just look at the size of stringers in some of the accompanying photographs . . . and get this, they were not small either! The 11th prize weighed in at one pound, four one-half ounces. The top-weighted crappie caught weighed two pounds and four ounces. It was netted by W. H. Rollen Jr.

Winners, in order of winning were:

W. H. Rollen
L. R. Edwards
L. J. Taylor
H. N. Benninghoff Jr.
A. K. VanHull
J. E. Williams
O. C. Buck
D. Dowrey
Jack Johnson
J. R. Cooter
J. A. Simms

G. G. Everett walked away with the dock prize . . . a Mitchell spinning reel.

Several ladies accompanied their husbands on the jaunt. A welcome face indeed was Ray Phillipi who came to fish. Ray retired from Y-12 some time back and had a most pleasant day with his friends. (Retirees are always welcomed at plant events.)

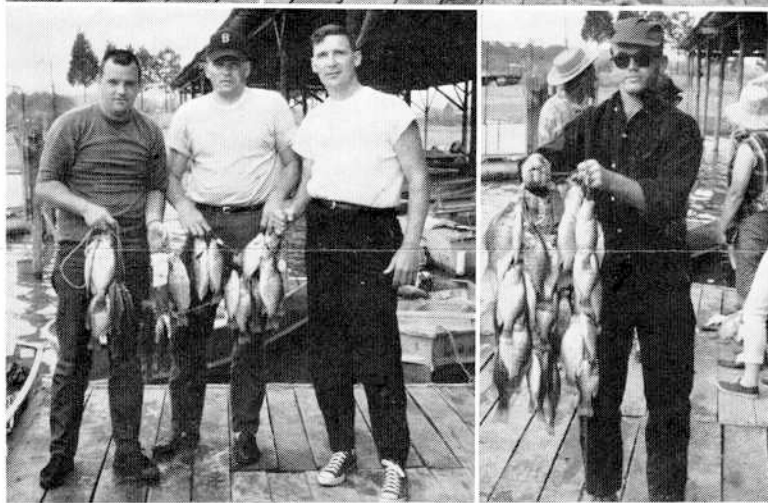
You know when there are 11 prizes given away for crappies . . . and the 11th entry weighs more than a pound, there were pretty good sized fish caught.

The next outing is set for April 15, at the Star Dust Dock on Norris Lake. The Saturday, April 15, rodeo will be open for all species.

The E, F, G, H and shifters also are planning a repeat of their successful POWDER PUFF RODEO . . . this one at the Carbide Park, May 13. (The ladies will win all the prizes, and they will be "female-type" prizes, too!)

HOW'S THAT AGAIN?

Toward the tail-end of a cocktail party, one female guest was overheard saying, "I certainly feel a lot more like I do now than when I got here!"



STRING AFTER STRING of crappie were produced at E, F, G, H and J's big early rodeo set Easter Saturday at Blue Springs. In the top photograph are the big winners. In the second slot are S. R. Anderson with two strings, and Mr. and Mrs. Homer Baker (center) with his brother and sister. Down in the third set of pictures are C. R. Warmesley, K. E. Tillery and Fred Hardin. H. E. Benninghoff Jr. shows off a double stringer, too. In the lower photos are Ray Phillipi and W. A. Story, Fred Marlar and D. Dowrey.

Hadassah To Sponsor Benefit Show Sunday

A benefit musical will be given Sunday, April 9, at 7 p.m. at the Beth-El Center, Oak Ridge. Mme. Marka M. Choset will direct the young musicians in the special benefit show. The Oak Ridge Chapter of Hadassah is sponsor-

ing the event for the benefit of Youth Aliyah.

Joel and Andy Shor, David Levy, Elizabeth Chesney, Janet Horn, Marcia Davis and Janice Knight are the young musicians on the program. Karen Volkin will give a dramatic reading from "The Dairy of Ann Franck."

Admission to the benefit is 50¢ for students, \$1 for adults.

Defensive Driving Course To Be Held

What's your chances of having a driving accident this year?

"Slim," you might answer.

"Not as slim as you might think," says Bill Rasmussen, co-chairman of the Oak Ridge Jaycees Defensive Driving Program. "If you drive 12,000 miles or more a year, your chances of having a driving accident are about one in three; of being injured, about one in 35; and of being killed, about one in 1,300!"

Quoting these statistics published by the National Safety Council, Bill commented, "You take a second look at the risks of driving with odds like these hanging over your head. I can't see how so many drivers are complacent about safe driving."

Drivers with fewer total driving miles per year have slightly better odds, according to the Council. If you drive between 8,000 and 12,000 miles a year, your chances of an accident are about one in five, if between 4,000 and 8,000 miles, about one in 10.

The Defensive Driving Program, sponsored by the Oak Ridge Jaycees, in Oak Ridge, is a full-scale safety campaign, aimed at improving your chances of survival on the streets and highways through the technique of defensive driving.

The Jaycees will be offering a series of classes in the technique of Defensive Driving for the next three weeks. The program began last night, Tuesday, April 4 . . . and will continue on Tuesdays and Thursdays for three weeks. The same class will be given on both nights so that the people will have a choice, as far as fitting the classes into their personal schedules. The classes will be held at the Jaycee Clubhouse on Melton Lake Drive from 7 until 9 p.m.

"Drivers wouldn't dare take the risks at home or at work they do on the highways," Rasmussen stated. "I'm convinced that many people habitually use their worst judgment when sitting behind the wheel of an automobile."

He further stated that drivers risk their lives to save seconds or an extra bit of effort.

Here's a list of risks a typical driver might take on the way to work in the morning to "save time."

- Pulling into the roadway ahead of oncoming vehicles instead of waiting for the vehicles to pass . . . time saved, about five seconds.

- Making rolling stops at corners with only a glance in each direction . . . time saved, about five to 10 seconds.

- Rounding a curve without reducing to safe speed . . . time saved, about 10 to 15 seconds.

- Following a vehicle ahead too closely, eager to pass . . . time saved, about five to 10 seconds.

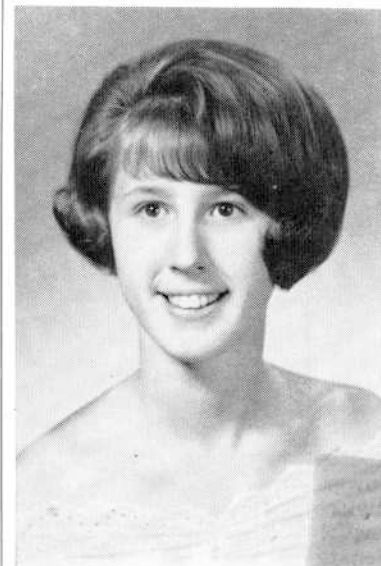
"These are just samples of the chances drivers take," he stated, "and you can name hundreds more."

"If a driver commits all of these on the same trip, he saves only a minute," he emphasized. "Most people's time just isn't that precious."

Carbide Camera Club Begins Photo Courses

Last Thursday, March 30, the Carbide Camera Club began a comprehensive course in basic photography. The course will meet each Thursday for eight weeks in Room Two of the First Presbyterian Church.

Anyone interested in attending these classes may do so.



Lana Seivers



Shirley Smith

Y-12 Daughters Set Girls' State Dates

Clinton High School Chooses Delegates

Middle Tennessee University, Murfreesboro, will be the scene of Girls' State this year.

Two Clinton High School students have been named to attend, representing their school.

They are Lana Seivers and Shirley Smith.

Lana, the daughter of Mr. and Mrs. James M. Seivers Jr., Scenic Drive, is a junior at CHS. She has been an officer for her freshman, sophomore and junior classes, a representative for three years of the Dragon Pit Teen Board, a vice president of the Top Hats, and will serve as president next year. She is a member of the First Baptist Church.

Lana's father, "Jiggs" is in Y-12's Employment.

Shirley Smith, recently named a Worthy Advisor of the Rainbow Girls, is the daughter of Mr. and Mrs. A. E. Smith, 125 Kentucky Avenue. She is a member of the Science Club, the Pep Club, and the annual staff. She was vice president of the junior class, and will serve as secretary of the Top Hats next year. She is also a member of the National Honor Society.

Shirley's father is in Y-12's Chemical Engineering Development.



"Office rat race? What's that?"

Beavers Again Are Volleyball Leads

Y-12's Beavers sit again contentedly on the top of the Volleyball race, thanks to wins last week.

Action began Tuesday on Court A as the Y-12 Eagles defeated the Neophytes 15-4, 15-3, 16-14, and 15-12. The ORNL Set-Ups soused the K-25 Sports 15-3, 15-4, 15-9 and 15-9. The Old Men and Tiger-cats tangled for final action on A Court . . . the Old Men winning the first and last tilts 17-15 and 15-8. The Tiger-cats won 15-8 and 15-9.

Action on Court B saw the Charley Brown's win 15-9 and 15-7, while the Beagles won the two middle games 15-13, 15-6. The Ecobums won three from the Mix-Ups 15-4, 15-8 and 15-9. The Mix-Ups took game three 15-3. The Beavers won three from the Scrubs 15-9, 15-11, 15-13 . . . the Scrubs taking game four 17-15.

Thursday's action began with the Set-Ups beating the Charley Brown's 15-4, 15-6, 15-5 and 15-8. The Old Men ousted the Eagles 15-7, 15-11, 15-1 and 15-10. The K-25 Sports shellacked the Neophytes 15-4, 15-4, 15-4 and 15-4.

Meanwhile on Court B the Tiger-cats tore up the Mix-Ups 15-10, 15-5, 15-2 and 15-4. The Beavers bested the Beagles 15-5, 15-3, 15-4 and 15-4. The Scrubs shaved the Ecobums 15-6, 15-8, 15-1 and 15-5.

League standings follow:

Team	W	L
Beavers, Y-12	26	2
K-25 Sports	23	5
Set-Ups, ORNL	22	6
Scrubs, ORNL	22	6
Tiger-cats, ORNL	22	6
Old Men, ORNL	16	12
Eagles, Y-12	10	18
Mix-Ups, K-25	8	20
Ecobums, ORNL	7	21
Neophytes, Y-12	5	23
Beagles, ORNL	3	25
Charley Brown's, ORNL	3	25

Ask for help on a two-man job. Why risk a strained back?

Mustangs By Four In Mixed Battle

With one night of competition remaining the Mustangs enjoy a four-point lead for the last half of the Mixed League bowling. They posted a four-point win over the Novices last week. The Hits & Misses hit the Goofers for three, as did the Twisters over the Alley Cats. The Roses 'N Thorns and Rollers shared two points.

George Cantrell, Mustangs, mustered a 214 scratch, 235 handicap single game. His series of 526 scratch, 598 handicap were high also. Joyce Gillihan, Rollers, rolled a 194 single scratch game, 236 handicap singleton. Her series of 504 scratch, 630 handicap were high also.

The Mustangs put a 675 scratch game on the boards. Their 796 handicap single tied with the Roses 'N Thorns. The Mustangs' series of 1934, 2297 were high.

League standings follow:

Team	W	L
Mustangs	35	17
Hits & Misses	31	21
Roses 'N Thorns	28	24
Goofers	27	25
Twisters	26	26
Rollers	25	27
Alley Cats	20	32
Novices	16	36

Table Tennis Leagues Feature Final Playoffs

Table Tennis play-offs saw F. Kertesz, ORNL, defeat Joe Lewin for three games in the K League last week. Winfred Collins, Y-12, defeated Ed Isham by the same score. Collins must now face Kertesz for championship of the K League.

Bob Coveyou downed Ed Gambill for two games . . . and Gordon Brewer defeated Coveyou for three to take the crown in the Y League.



THE FIREBALLS (TOP) AND THE HILIFERS are hot teams in the C Bowling League. The Fireballs consist of Jim McLean, George McPherson, Vern Beckner, Herb Runge and Carl Frazier. The Hilifers are Frank Adams, Ernest Croley, J. D. Kirkpatrick, Captain Grady Norton and Perry Bullard.

Badgers Keep Two-Point Lead As C Alley Race Goes Down To Wire

It looks like the C Bowling League is going right down to the wire. The Badgers maintained a two-point lead in the league standings last week with a three-point win over the Big Five. Other three-point victories went to the Fireballs past the Parbusts, the Sunflowers over the Strikers and the Rollmasters 'round the Royal Flush. Sharing two were the Rounders and Rodders and the HiLifers and the Invalids.

Norm Jarvis, Big Five, hit a 234 single game . . . a 605 series

Rebels Grab Top Classic Position

The Rebels, apparently tired of the Playboys and Has Beens playing around with the lead, grabbed the top spot in Classic Bowling last week by swamping the Screwballs for four points. The Swingsters moved within firing distance by taking four from the Wasps. Three points went to the Playboys over the Splinters, the Tigers around the Rippers, the Bumpers beyond the Cubs, the All Stars past the Has Beens and the Eightballs by the Eagles. The Markers and Smelters shared two points.

Otto Briscoe, All Stars, rolled high singles with a 236 scratch, 262 handicap game. Sewell Brown, Has Beens, posted series in the order of 629 scratch, 681 handicap.

The All Stars swept team honors all the way across the boards . . . singles of 947 scratch, 1081 handicap . . . series of 2778, 3079.

League standings follow:

Team	W	L
Rebels	37½	18½
Playboys	37	19
Swingsters	36	20
Tigers	35½	20½
Has Beens	35	21
Splinters	32	24
Eagles	30	26
Bumpers	29	27
Markers	28½	27½
Wasps	26	30
All Stars	26	30
Cubs	24	32
Rippers	19½	36½
Smelters	18	38
Screwballs	17	39
Eightballs	17	39

in scratch counting. Ernest Ely, Rounders, posted a 249 handicap single; and Dick Huber, Badgers, bagged a 648 handicap series.

The Sunflowers scored high in scratch with singles of 900, series of 2608. The Parbusts posted high handicap singles of 1031, and the Fireballs hit a 2975 handicap series.

League standings follow:

Team	W	L
Badgers	30	14
Rounders	28	16
Fireballs	25	19
Big Five	25	19
Strikers	25	19
HiLifers	23½	20½
Rodders	22	22
Sunflowers	21	23
Parbusts	17	27
Invalids	16	28
Royal Flush	16	28
Rollmasters	15½	28½

'Cars, Cars' Are 21st Century Theme

By 2001, America may have 160 million automated, perhaps even flying cars, powered by gasoline or kerosene, fuel cells or batteries or even the atom. What the auto may look like and how to live with it, will be reported on "The 21st Century" in "Autos, Autos, Everywhere" Sunday, April 9 at 6 p.m. in color on CBS-TV. (The program is carried by Channel 10, WBIR-TV, in Knoxville.)

"21st Century" reporter Walter Cronkite, a sports car enthusiast and former racing car driver, will visit automotive research and development centers to report on the latest and most advanced concepts in engineering vehicles designed not for flash, or dash, but for safety, practical usage, and control of noise and air pollution.

The latest in experimental cars featuring new safety and operating features will be shown. Included are Ford's aircraft-type automobile control that will eliminate the hazardous steering wheel rim. Chrysler's noise-free gas turbine engine, a television camera rearview mirror, and a punch card door, ignition and steering apparatus lock.

A General Motors Electrovan

Recreation



Friday, April 7

SPRING DANCE: 9 p.m.-1 a.m. All Y-12ers Welcome. \$1.50 per head. Oak Terrace Ballroom.

Sunday, April 9

SKET TOWNSHIP: 1 p.m., Oak Ridge Sportsman's Association range.

Monday, April 10

BOWLING: 5:45 p.m., C League, Ark Lanes.

TABLE TENNIS: 7 p.m., Wildcat's Den.

PHYSICAL FITNESS: (For Women) 7 p.m., Oak Ridge High School Girls' Gym.

Tuesday, April 11

PHYSICAL FITNESS: (For Men) 7:30 p.m., Oak Ridge High School Gym.

VOLLEYBALL: Beginning 6:30 p.m., Robertsville Junior High School Gym. Court A: Old Men vs. Scrubs; Neophytes vs. Mix-Ups; Charley Browns vs. Beavers. Court B: K-25 Sports vs. Ecobums; Eagles vs. Beagles; Set-Ups vs. Tigers.

Wednesday, April 12

CARBIDE RIFLE LEAGUE: 7 p.m., Clinton Rifle Range.

BADMINTON: 7:30 p.m., Jefferson Junior High School Gym.

BOWLING: 8 p.m., Mixed League (Roll-Off).

Thursday, April 13

BOWLING: 5:45 p.m., Classic League, Ark Lanes.

VOLLEYBALL: Beginning 6:30 p.m., Robertsville Junior High School Gym. Court A: Eagles vs. Set-Ups; K-25 Sports vs. Tigers; Charley Brown's vs. Ecobums. Court B: Old Men vs. Beagles; Neophytes vs. Beavers; Mix-Ups vs. Scrubs.

Saturday, April 15

FISHING RODEO: E, F, G, H and J Shifts. All Y-12ers welcomed at the all-species event. Star Dust Boat Dock, Norris Lake.

Skeet Shoot Is Re-Set For This Sunday At 1

The Carbide Skeet Shoot, originally set for last Sunday, April 2, has been rescheduled for this coming Sunday, April 9.

Any interested Skeeter may attend the tournament and participate in the firing. Each match is a separate one, and newcomers are always welcome. The rules are set so that novice firers have an equal chance with the old hands.

powered by fuel cells will be demonstrated. The fuel cells, provided by Union Carbide, create electrical energy through chemical reaction. The waste product of this action water. A fuel cell is distinguished from a storage battery, which requires recharging, in that it will produce electricity as long as the fuel (hydrogen and oxygen in this case) is fed into the system. The GM Electrovan, an experimental sports car powered by storage batteries will also be demonstrated. The Electrovan can accelerate from zero to 60 miles per hour in 16 seconds, and travel 80 miles between charges.

The StarRcar, a commuter's dream for the 21st century, will be driven by Cronkite. The StarRcar operates as a conventional automobile, but can also be driven on a special track system for high speed trips. Once on the track, the driver can read, sleep, shave, or catch up on his work. At terminals, or junctions, along the StarRcar route it can be parked, reused or driven away over roads or streets.

CARBIDE'S Y-12 SPRING DANCE

AT

The Oak Terrace Ballroom

Friday - April 7, 1967

FEATURING

Alan Atkin's Orchestra

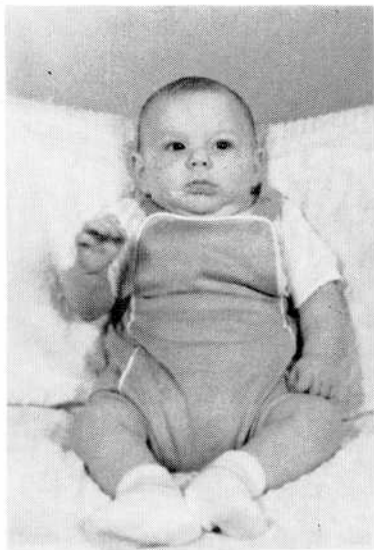
9:P.M. TO 1:A.M. • DOOR PRIZES • \$1.50 PER PERSON



UNION CARBIDE CORPORATION
NUCLEAR DIVISION
P. O. BOX Y, OAK RIDGE, TENNESSEE 37830

(RETURN REQUESTED)

BULK RATE
U.S. Postage
PAID
Oak Ridge, Tenn.
Permit No. 71



ROBERT LOWERY QUEENER, born December 30, 1966 (just in time for income tax qualifications!) is the son of Mr. and Mrs. James R. Queener. His proud grand-pa is M. L. Petty, Y-12's Research Services. The Queeners live at Route 1, Clinton.

Jaycees Will Sponsor Dale Carnegie Course

The Oak Ridge Jaycees are sponsoring the world-famous Dale Carnegie Course, to begin shortly in Oak Ridge.

The unique, personal training program is designed to help develop a person's self-confidence, leadership and communication abilities. Carnegie himself said, "The man who has technical knowledge plus the ability to express his ideas, to assure leadership, arouse enthusiasm and the ability to deal with people — that man or woman is headed for higher earning power."

The Carnegie Course is approved by the Educational Assistance Program for partial reimbursement of expenses incurred.

The Jaycees are offering a public explanation meeting of the Course next Monday, April 10, at the Jaycee Clubhouse on Melton Lake Drive, at 7:30 p.m. There is no obligation . . . so come on out and find out about the course.

For further information call Joe Sherrod, president, at extension 3-5877.

Union Carbide Prints 325,000 Annual Reports

Union Carbide's annual report, which was mailed to Y-12 employees recently, really made the rounds. In addition to all employees, to stockholders, the report has been sent to the press, security analysts, corporate secretaries, engineering colleges, some 450 Linde distributions, and to key executives of other corporations and financial institutions. Copies have also been provided for plant community distribution. This year, 325,000 copies of the report were printed.

Mellerdrama Sets Try-Outs Monday

"The Streets of New York" will be the Oak Ridge Playhouse's mellerdrama offering for the three weekends in June this year. Try-outs for the show will be held Monday, April 10, at the Oak Ridge Playhouse in Jackson Square. Readings will begin at 7:30 p.m.

The cast requirements for "The Streets" include nine men and four women from ages 20 up. Roles include an extremely dastardly villain who steals from the poor to feed himself; his equally greedy and snobbish daughter; a proud but hood-winked hero; a brave sea captain who leaves his family destitute; the captain's kind widow and his gentle daughter and tender son; a bank clerk who discovers the crimes of the villain and blackmails him; a generous landlord and landlady; plus other varied characters who are present in the streets of New York.

There is also a call out for performers of specialty acts — dancers, singers, etc. The intermissions will be liberally filled with olies including a revival of ever popular Incredible Boston Light Opera Society. All tryouts are open to the community. For special arrangements or further information, call Paul Ebert, Oak Ridge telephone 483-6193 or 483-1224.

NO WINDOW PAINS

School windows broken by vandals cost taxpayers an uncalculated number of dollars every year and chemical progress has supplied an answer to the problem — a polycarbonate resin glazing which can give window glass enough strength to withstand sledge hammer blows. Many school systems through the country are now installing the "new" glass.



KEVIN DOUGLAS ROSE is the first grandchild of T. G. Walters, Process Maintenance. He was born February 20 . . . the son of Harold and Carol Rose, Clinton, where his father is captain of the Fire Department.



PROKOFIEV'S CLASSIC "PETER AND THE WOLF" will be the featured number at the Oak Ridge Civic Ballet's Concert, set tomorrow, Friday and Saturday, April 6, 7, and 8. The ballet will be given in the Oak Ridge Playhouse. Curtain time at 8:15 p.m. with a matinee set Saturday at 2 p.m.

Revolutionary Auto Seen

Continued from Page 1
fuel and to provide a distribution network similar to that of more conventional automotive fuels."

Hydrogen No Hazard

The Union Carbide scientist discounted the "popular view" that hydrogen is hazardous. "Extensive industrial experience has shown that safety problems in handling liquid hydrogen, although different in character, are no greater in magnitude than those of handling gasoline."

Dr. Charpie emphasized that liquid hydrogen is an economically attractive fuel. While the price is now about 20 cents per pound, full utilization of the fuel would reduce it to about 10 cents per pound. He claimed that one pound of hydrogen in a fuel cell would give about the same performance as one gallon of gasoline in an internal combustion engine.

Electric Vehicles, For Sure

Regardless of the system used, whether fuel cells, improved battery sources or the hybrid system, there will be electric vehicles developed during the next decade, according to Dr. Charpie. "The first applications of the fuel cell or hybrid systems will come in vehicle fleets used in the cities such as buses, delivery vans, taxis and postal trucks. Only at a much later date will the electronic automobile be practical."

Dr. Charpie was complimentary of the committee bills which are aimed at shortening the time for achieving practical, commercial electric vehicles. He recommended that the Federal program supplement private work rather than simply provide additional funds to increase research and development expenditures on electric vehicles.

Problems Now Exist

He visualized the supplementary assistance in the form of government help in easing the way for introducing electric vehicles into the city. "There are numerous legal, regulatory, and tax questions which must be resolved before the use of electric vehicles can be widespread," he said. "There are standards of performance and safety which must be established before the electric vehicle or automobile can become a commodity."

The early resolution of these problems, he concluded, "can substantially reduce the total cost to the United States of developing

'Peter and the Wolf' Is Feature Work At Ballet Here This Week-End

Prokofiev's "Peter and the Wolf" will be the outstanding feature of the Oak Ridge Civic Ballet's concert, set for this week April 6, 7 and 8. The ballet is set for 8:15 Thursday, Friday and Saturday nights at the Oak Ridge Playhouse. A matinee will be held Saturday, April 8 at 2 p.m.

"Medea" will also be given.

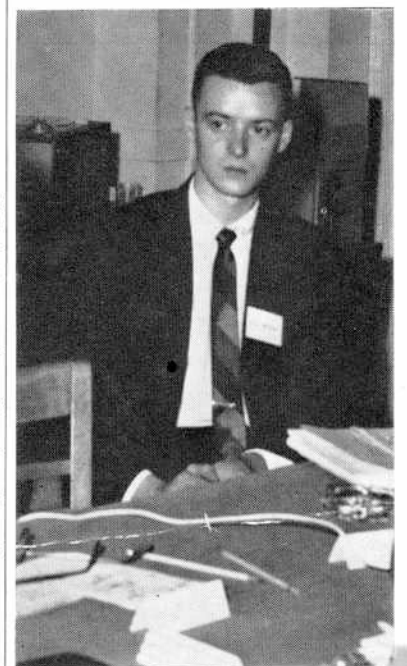
The talented young artists seen above are, from left, Wendy Young, Rebecca Kitchen, Lynda Holloway, Natalie Levin, in the front row. In the back row are

Pan Zachry, Kathy Callaghan, M. A. LaVerne, Butch East, Karen Kitchen, Alice Roemer and Lorie Smith.

Tickets will be available for \$1 for students, and \$2 for adults at the box office.

Information on the performance may be obtained from Mrs. W. L. Griffith, Oak Ridge telephone 483-4805.

Marlar Son Attains Captain's Rating



Captain Ronald Marlar

The R. G. Marlars had good news from son Ronnie recently. He has been raised to a captain with the U.S. Air Force. Captain ORNL, the son of R. G. Marlar, ORNL Chemical Services (his mother Mattie Marlar is in Production Assay), is stationed at Tachikawa Air Base, outside Tokyo. A journalism graduate of the University of Tennessee, Marlar acts as Public Information Officer with the U.S. Air Force.

His family (his wife is the former Sharron Johnson) is with him in Japan. The couple has a small son Robert Gregory.

Captain Marlar was awarded the bronze star for heroic action in Viet Nam before leaving the southeastern Asian country last year.

The Marlars hope to visit their son in Japan this year.



A mere handful of Y-12ers celebrate "birthdays" as April ushers in the lush weather. Congratulations to these Union Carbide Corporation veterans!

15 YEARS

Alonzo Mills, Electrical Department, April 7.

John S. Robinson, Process Maintenance, April 7.

Walter B. Bailey, Physical Testing, April 8.

Percy K. Wallace, Dispatching Department, April 9.

Alford F. Herrell, SS Shipping and Warehousing, April 11.

Paper Clothing May Give Smokers Headache!

Some fashion experts predict a bright future for disposable paper clothing — made possible through progress in the chemical industry by the development of special resins which make paper resistant to fire, water and abrasions.

Throw-away paper dresses are already on the market, and some designers foresee the use of paper in making graduation and wedding gowns, party costumes, underwear and housecleaning smocks. (Smokers, take heed!)

an acceptable electric vehicle system and hasten the day when the electric car helps to improve the quality of urban life throughout the world."

Block accidents by tackling work safely.